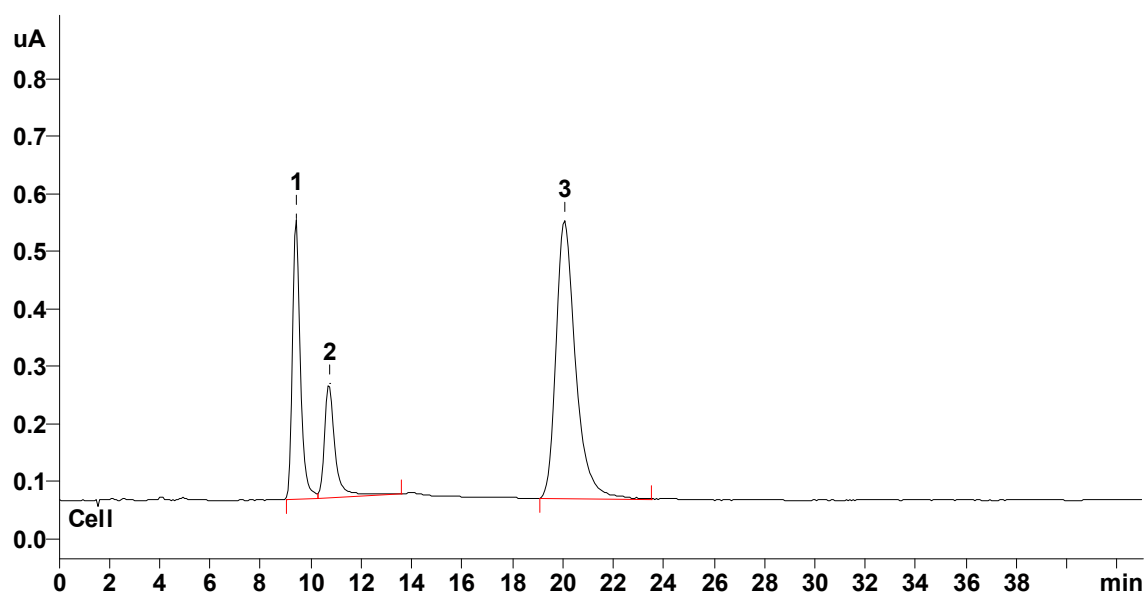


# Glucose, fructose, and sucrose in banana applying pulsed amperometric detection



Nutritionally, banana fruit is a good source of mineral elements and vitamins A and C. Bananas begin the ripening process as soon as they are harvested, when they contain approximately 20 - 25% starch and 1% sugar. When the bananas turn yellow with some brown spots, they are fully ripened, and the ratio is completely reversed.

## Results

Peak number	Carbohydrate	mg/g
1	Glucose	15
2	Fructose	11
3	Sucrose	71

# Method description

## Sample

Banana

## Sample preparation

Extract 1.1 g in 100 mL ultrapure water by sonication. Filtrate through 0.45 µm and dilute 1 : 20 with ultrapure water

## Column

Hamilton RCX-30 - 250/4.6	6.1018.000
Metrosep RP 2 Guard/3.5	6.1011.030

## Solutions

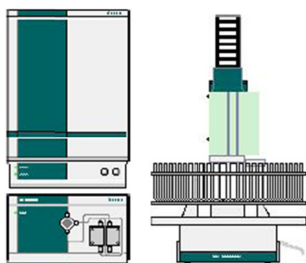
Eluent:	150 mmol/L sodium hydroxide
---------	-----------------------------

## Analysis

PAD	
Pulse potential #1	+0.05 V / 400 ms
Pulse potential #2	+0.75 V / 200 ms
Pulse potential #3	-0.15 V / 400 ms

## Parameters

Flow rate column	1.0 mL/min
Injection volume	20 µL
P <sub>max</sub>	15.0 MPa
Recording time	25 min
Column temperature	32 °C



## Instrumentation

818 Advanced IC Pump	2.818.0110
871 Advanced Bioscan	2.871.0010
838 Advanced Sample Processor	2.838.0010

m